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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,617	09/29/2004	Pao-Yun Tang	HANP0006USA	5616
27765	7590	04/16/2009		
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116				
EXAMINER NGUYEN, DUNG T				
ART UNIT		PAPER NUMBER		
2871				
NOTIFICATION DATE		DELIVERY MODE		
04/16/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu.uspto@gmail.com  
Patent.admin.uspto.Rcv@naipo.com  
mis.ap.uspto@naipo.com.tw

### Office Action Summary

**Application No.**

10/711,617

**Applicant(s)**

TANG ET AL.

**Examiner**

Dung Nguyen

**Art Unit**

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1.5.13 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1.5.13 and 16-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/03/2009 has been entered.
2. Applicants' amendment dated 02/03/2009 has been received and entered. Claims 1, 5, 13 and 16-21 are remain pending in the application.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5, 13 and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' admitted prior art (APA), figures 1-2, in view of Sato, US 2006/0097380 A1.

Regarding the above claims, APA discloses a liquid crystal module (100) comprising a glass substrate (104) having a display area (120) and a peripheral area (130), a gate driver chip (108), a source driver chip (106); wherein the gate/source driver chip(s) are directly mounted on the glass substrate (see figure 2) with an anisotropic conductive film (110).

APA, however, do not explicitly disclose the thickness of the gate/source driver chip is less than 0.3mm. Sato does disclose a gate/source driver chip (IC chip 9) having a thickness of 0.140mm (paragraph [0067], line 12). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to employ a gate/source driver chip having a thickness less than 0.3mm as shown by Sato in order to make a portable display since the IC chip thickness can be reduced as thin as less than 0.3mm; as a result, it would reducing the stress created between the chip and the glass substrate.

***Response to Arguments***

5. Applicant's arguments filed 02/03/2009 have been fully considered but they are not persuasive.

Applicant's arguments are as follow:

. Sato fails to provide a motivation to fabricate a semiconductor module for relieving stress between IC chip and the glass substrate since Sato's invention is specially thinned to provide a plane surface.

. The utilization of anisotropic conductive film is clearly absent in the Sato's invention.

. There is clearly lack of motivation to combine the Sato's invention with the admitted prior art since the Sato's reference belongs to a completely different field from the liquid crystal module of the present invention.

The Examiner's responses are as follow:

. As stated in the previous office action, in response to applicant's argument that Sato does not teach, suggest or in any way provide proper motivation to fabricate a semiconductor

module, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In addition, since the claimed thinned driver chip and the Sato's driver chip products are identical (i.e., thinned chip), claimed functions are presumed to be inherent (see MPEP 21 12.01); therefore, the Sato's IC chip would also functions to relieve stress between two units (e.g., IC chip and the substrate) as claimed as well.

. The Examiner respectfully disagrees with Applicant's viewpoint. In particular, the APA's figure 2 clearly shows the anisotropic conductive film (110) bonding the driver chip(s) over the glass substrate (104) and the Sato's underfill layer (51) also functions as bonding the driver chip (9) over the substrate (circuit board 3). Therefore, an anisotropic conductive film would be utilized in the modification to the APA's device as well (e.g., the Sato's thinned driver chip bonded to the APA's substrate through the APA's anisotropic conductive film). In other words, the modification to APA would be proper and obvious to one of ordinary skill in the art.

. In response to applicant's argument that the Sato's module is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the application of the semiconductor module such as driver IC chip (classify as in class 257) is well known in the display art (e.g., class 349). Therefore, the combination of the APA's reference and the Sato's art would have been obvious to one skilled in the art; and thus, such combination would be proper as well. .

Accordingly, the rejection of the above claims stand as stated above.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN  
04/13/2009

/Dung T. Nguyen/  
***Dung Nguyen***  
***Primary Examiner***  
***Art Unit 2871***